

## AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1           1. (Currently Amended) A computer-implemented method for combining at  
2   least two overlapping layers to render an image, the image containing a plurality of  
3   image pixels, each overlapping layer containing a plurality of layer pixels, each layer  
4   pixel corresponding to one of the image pixels, the method comprising:

5           a')    defining a tile, the tile comprising a subset of the image pixels  
6                   delimited according to an area of overlap among a set of at least  
7                   two layers, so that a first portion of the image lies within the tile  
8                   and a second portion of the image lies outside the tile; and

9           a)    processing the first portion of the image distinctly from the sec-  
10                  ond portion of the image by, for at least one image pixel in the  
11                  defined tile:

12                  a.1)   initializing an accumulator color value;

13                  a.2)   selecting one of the layers in the set of at least two layers,  
14                          the selected layer having a layer pixel corresponding to  
15                          the image pixel, the layer pixel having a color value;

16                  a.3)   compositing the color value of the layer pixel with the ac-  
17                          cumulator color value;

18                  a.4)   storing the result of a.3) in the accumulator;

19 a.5) determining whether layer pixels for any remaining lay-  
20 ers in the set of at least two layers should be processed;  
21 a.6) responsive to a.5) indicating that layer pixels for any re-  
22 maining layers should be processed, repeating a.2) to a.6);  
23 and  
24 a.7) outputting the accumulator color value;

25 wherein, for each defined tile, the set of layers that overlap within the  
26 tile is homogenous throughout the entirety of the tile.

27  
1 2. (Original) The method of claim 1, wherein each layer pixel has an opacity  
2 value, and wherein:

3 a.1) further comprises initializing an accumulator opacity value;  
4 a.3) further comprises compositing the opacity value of the layer pixel  
5 with the accumulator opacity value; and  
6 a.5) comprises determining whether the accumulator opacity value in-  
7 dicates full opacity.

1 3. (Original) The method of claim 1, wherein a.2) comprises selecting a top-  
2 most remaining layer in the set of at least two layers.

1 4. (Original) The method of claim 1, wherein a.7) comprises outputting the  
2 accumulator value to a frame buffer.

1           5. (Original) The method of claim 1, further comprising:

2                   b)     displaying the image.

1           6. (Original) The method of claim 1, further comprising:

2                   b)     repeating a) for each image pixel in the defined tile.

1           7. (Original) The method of claim 1, wherein a) comprises performing a.1)

2 through a.7) for at least two image pixels concurrently.

1           8. (Original) The method of claim 1, further comprising:

2                   b)     concurrently with a), for a second image pixel in the defined tile:

3                   b.1)   initializing a second accumulator color value;

4                   b.2)   selecting one of the layers in the set of at least two layers, the se-  
5                   lected layer having a second layer pixel corresponding to the  
6                   second image pixel, the second layer pixel having a color value;

7                   b.3)   compositing the color value of the second layer pixel with the  
8                   second accumulator color value;

9                   b.4)   storing the result of b.3) in the second accumulator;

10                  b.5)   determining whether layer pixels for any remaining layers in the  
11                  set of at least two layers should be processed;

12                  b.6)   responsive to b.5) indicating that layer pixels for any remaining  
13                  layers should be processed, repeating b.2) to b.6); and

14                  b.7)   outputting the second accumulator color value.

1           9. (Original) The method of claim 1, wherein at least one of the layers in the  
2 set of at least two layers is non-rectangular.

1           10. (Original) The method of claim 1, wherein at least one pixel of at least one  
2 of the layers in the set of at least two layers is transparent, and wherein a.3) com-  
3 prises:

4           a.3.1) responsive to the layer pixel being transparent, retaining the ac-  
5 cumulator color value; and

6           a.3.2) responsive to the layer pixel not being transparent, compositing  
7 the color value of the layer pixel with the accumulator color  
8 value.

1           11. (Original) The method of claim 1, further comprising:

2           b') repeating a') and a) for at least one second defined tile.

1           12. (Original) The method of claim 1, wherein each layer comprises a win-  
2 dow, and wherein the image comprises a display for a windowing system.

1           13. (Original) The method of claim 1, wherein a first one of the layers in the  
2 set overlaps a second one of the layers in the set, and wherein each layer comprises  
3 bounds defined by edges, and wherein at least one edge of the first layer lies within  
4 the bounds of the second layer, and wherein a') comprises:

5 subdividing the second layer along a line corresponding to an exten-  
6 sion of the at least one edge of the first layer that lies within the  
7 bounds of the second layer.

1 14. (Original) The method of claim 1, wherein:

2 a.2) comprises selecting one of the layers in the set of at least two layers,  
3 the selected layer having a layer pixel corresponding to the im-  
4 age pixel, the layer pixel having a color value and an alpha  
5 value; and

6 a.3) comprises compositing the color value of the layer pixel with the  
7 accumulator color value, using the alpha value.

1 15. (Currently Amended) A system for combining at least two overlapping  
2 layers to render an image, the image containing a plurality of image pixels, each  
3 overlapping layer containing a plurality of layer pixels, each layer pixel correspond-  
4 ing to one of the image pixels, the system comprising:

5 a tile subdivider, for defining a tile, the tile comprising a subset of the  
6 image pixels delimited according to an area of overlap among a  
7 set of at least two layers, so that a first portion of the image lies  
8 within the tile and a second portion of the image lies outside the  
9 tile;

10 an accumulator, for initializing an accumulator color value for at least  
11 one image pixel in the defined tile;

12 a layer selector, coupled to the tile subdivider, for successively selecting  
13 each of at least a subset of the layers in the set of at least two lay-  
14 ers, each selected layer having a layer pixel corresponding to the  
15 image pixel, the layer pixel having a color value;  
16 a compositor coupled to the layer selector and to the accumulator, for,  
17 for each successively selected layer, compositing the color value  
18 of the layer pixel with the accumulator color value and storing  
19 the result in the accumulator; and  
20 an output device, coupled to the accumulator, for outputting the ac-  
21 cumulator color value;  
22 wherein in combining the overlapping layers, the accumulator, the  
23 layer selector, and the compositor process the first portion of the  
24 image distinctly from the second portion of the image;  
25 wherein, for each defined tile, the set of layers that overlap within the  
26 tile is homogenous throughout the entirety of the tile.

1 16. (Original) The system of claim 15, wherein each layer pixel has an opacity  
2 value, and wherein:  
3 the accumulator further initializes an accumulator opacity value;  
4 the compositor further composites the opacity value of the layer pixel  
5 with the accumulator opacity value and stores the result in the  
6 accumulator; and

7 the subset of overlapping layers selected by the layer selector is deter-  
8 mined responsive to a comparison of the accumulator opacity  
9 value with a full opacity value.

1 17. (Original) The system of claim 15, wherein the layer selector successively  
2 selects layers by selecting a topmost remaining layer in the set of at least two layers.

1 18. (Original) The system of claim 15, wherein the output device outputs the  
2 accumulator value to a frame buffer.

1 19. (Original) The system of claim 15, further comprising a display device,  
2 coupled to the output device, for displaying the image.

1 20. (Original) The system of claim 15, wherein each of the layer selector,  
2 compositor, accumulator, and output device operates on each image pixel in the de-  
3 fined tile.

1 21. (Original) The system of claim 15, wherein the layer selector, compositor,  
2 accumulator, and output device each operate on at least two image pixels con-  
3 currently.

1 22. (Original) The system of claim 15, further comprising a second accumula-  
2 tor, coupled to the compositor, wherein:

3 the second accumulator initializes a second accumulator color value for  
4 a second image pixel in the defined tile;

5 the layer selector, concurrently with successively selecting each of at  
6 least a subset of the layers in the set of at least two layers having  
7 a layer pixel corresponding to the first image pixel, selects one of  
8 the layers in the set of at least two layers having a second layer  
9 pixel corresponding to the second image pixel, the second layer  
10 pixel having a color value;  
11 the compositor, concurrently with compositing the first color value of  
12 the layer pixel with the accumulator color value, composites the  
13 color value of the second layer pixel with the second ac-  
14 cumulator color value and stores the result in the second ac-  
15 cumulator; and  
16 the output device outputs the second accumulator color value.

1 23. (Original) The system of claim 15, wherein at least one of the layers in the  
2 set of at least two layers is non-rectangular.

1 24. (Original) The system of claim 15, wherein at least one pixel of at least one  
2 of the layers in the set of at least two layers is transparent, and wherein the composi-  
3 tor:  
4 responsive to the layer pixel being transparent, retains the accumulator  
5 color value; and  
6 responsive to the layer pixel not being transparent, composites the color  
7 value of the layer pixel with the accumulator color value.



1           25. (Original) The system of claim 15, wherein:

2                   the tile subdivider defines as a second tile a second area of overlap be-  
3                   tween a second set of at least two layers, the tile comprising a  
4                   second subset of the image pixels;

5                   the accumulator initializes a second accumulator color value for at least  
6                   one image pixel in the second defined tile;

7                   the layer selector successively selects each of at least a subset of the lay-  
8                   ers in the second set of at least two layers, each selected layer  
9                   having a layer pixel corresponding to the image pixel, the layer  
10                  pixel having a color value;

11                  the compositor, for each successively selected layer, composites the  
12                  color value of the layer pixel with the second accumulator color  
13                  value and stores the result in the accumulator; and

14                  the output device outputs the second accumulator color value.

1           26. (Original) The system of claim 15, wherein each layer comprises a win-  
2           dow, and wherein the image comprises a display for a windowing system.

1           27. (Original) The system of claim 15, wherein a first one of the layers in the  
2           set overlaps a second one of the layers in the set, and wherein each layer comprises  
3           bounds defined by edges, and wherein at least one edge of the first layer lies within  
4           the bounds of the second layer, and wherein the tile subdivider subdivides the sec-

ond layer along a line corresponding to an extension of the at least one edge of the  
first layer that lies within the bounds of the second layer.

28. (Original) The system of claim 15, wherein:

the layer selector successively selects each of at least a subset of the layers in the set of at least two layers, each selected layer having a layer pixel corresponding to the image pixel, the layer pixel having a color value and an alpha value; and  
the compositor composites the color value of the layer pixel with the accumulator color value, using the alpha value.

29. (Currently Amended) A computer program product comprising a computer-usable medium having computer-readable code embodied therein for combining at least two overlapping layers to render an image, the image containing a plurality of image pixels, each overlapping layer containing a plurality of layer pixels, each layer pixel corresponding to one of the image pixels, the computer program product comprising:

computer-readable program code devices configured to cause a computer to define a tile, the tile comprising a subset of the image pixels delimited according to an area of overlap among a set of at least two layers, so that a first portion of the image lies within the tile and a second portion of the image lies outside the tile;  
and

13 computer-readable program code devices configured to cause a com-  
14 puter to process the first portion of the image distinctly from the  
15 second portion of the image by, for at least one image pixel in  
16 the defined tile:  
17 initializing an accumulator color value;  
18 selecting one of the layers in the set of at least two layers, the selected  
19 layer having a layer pixel corresponding to the image pixel, the  
20 layer pixel having a color value;  
21 compositing the color value of the layer pixel with the accumulator  
22 color value;  
23 storing the result of the compositing in the accumulator;  
24 determining whether layer pixels for any remaining layers in the set of  
25 at least two layers should be processed;  
26 responsive to the determination indicating that layer pixels for any re-  
27 maining layers should be processed, repeating the initializing,  
28 selecting, compositing, storing, and determining steps; and  
29 outputting the accumulator color value;  
30 wherein, for each defined tile, the set of layers that overlap within the  
31 tile is homogenous throughout the entirety of the tile.

1 30. (Original) The computer program product of claim 29, wherein each layer  
2 pixel has an opacity value, and wherein:

3 the computer-readable program code devices configured to cause a  
4 computer to initialize further comprise computer-readable pro-  
5 gram code devices configured to cause a computer to initialize  
6 an accumulator opacity value;  
7 the computer-readable program code devices configured to cause a  
8 computer to composite further comprise computer-readable  
9 program code devices configured to cause a computer to com-  
10 posite the opacity value of the layer pixel with the accumulator  
11 opacity value; and  
12 the computer-readable program code devices configured to cause a  
13 computer to determine whether layer pixels for any remaining  
14 layers should be processed comprise computer-readable pro-  
15 gram code devices configured to cause a computer to determine  
16 whether the accumulator opacity value indicates full opacity.

1 31. (Original) The computer program product of claim 29, wherein the com-  
2 puter-readable program code devices configured to cause a computer to select one of  
3 the layers comprise computer-readable program code devices configured to cause a  
4 computer to select a topmost remaining layer in the set of at least two layers.

1 32. (Original) The computer program product of claim 29, wherein the com-  
2 puter-readable program code devices configured to cause a computer to output the  
3 accumulator color value comprise computer-readable program code devices config-  
4 ured to cause a computer to output the accumulator value to a frame buffer.

1 33. (Original) The computer program product of claim 29, further compris-

2 ing:

3 computer-readable program code devices configured to cause a com-  
4 puter to display the image.

1 34. (Original) The computer program product of claim 29, further compris-

2 ing:

3 computer-readable program code devices configured to cause a com-  
4 puter to repeat the initializing, selecting, compositing, storing,  
5 determining, and outputting for each image pixel in the defined  
6 tile.

1 35. (Original) The computer program product of claim 29, wherein the com-

2 puter-readable program code devices are configured to cause a computer to perform  
3 the initializing, selecting, compositing, storing, and outputting for at least two image  
4 pixels concurrently.

1 36. (Original) The computer program product of claim 29, further compris-

2 ing:

3 computer-readable program code devices configured to cause a com-  
4 puter to, for a second image pixel in the defined tile and concur-  
5 rently with the selecting, compositing, storing, and outputting  
6 for the first image pixel:

7 initialize a second accumulator color value;  
8 select one of the layers in the set of at least two layers, the selected layer  
9 having a second layer pixel corresponding to the second image  
10 pixel, the second layer pixel having a color value;  
11 composite the color value of the second layer pixel with the second ac-  
12 cumulator color value;  
13 store the result of the compositing in the second accumulator;  
14 determine whether layer pixels for any remaining layers in the set of at  
15 least two layers should be processed;  
16 responsive to the determination indicating that layer pixels for any re-  
17 maining layers should be processed, repeat the initializing, se-  
18 lecting, compositing, storing, and determining steps; and  
19 output the second accumulator color value.

1 37. (Original) The computer program product of claim 29, wherein at least  
2 one of the layers in the set of at least two layers is non-rectangular.

1 38. (Original) The computer program product of claim 29, wherein at least  
2 one pixel of at least one of the layers in the set of at least two layers is transparent,  
3 and wherein the computer-readable program code devices configured to cause a  
4 computer to composite the color value of the layer pixel with the accumulator color  
5 value comprise computer-readable program code devices configured to cause a com-  
6 puter to:

7 responsive to the layer pixel being transparent, retain the accumulator  
8 color value; and  
9 responsive to the layer pixel not being transparent, composite the color  
10 value of the layer pixel with the accumulator color value.

1 39. (Original) The computer program product of claim 29, further com-  
2 prising:

3 computer-readable program code devices configured to cause a com-  
4 puter to define as a second tile an area of overlap between a set  
5 of at least two layers, the second tile comprising a second subset  
6 of the image pixels; and

7 computer-readable program code devices configured to cause a computer to  
8 repeat the initializing an accumulator color value, selecting one of the layers, compo-  
9 siting, storing, repeating, and outputting, for the second defined tile.

1 40. (Original) The computer program product of claim 29, wherein each layer  
2 comprises a window, and wherein the image comprises a display for a windowing  
3 system.

1 41. (Original) The computer program product of claim 29, wherein a first one  
2 of the layers in the set overlaps a second one of the layers in the set, and wherein  
3 each layer comprises bounds defined by edges, and wherein at least one edge of the  
4 first layer lies within the bounds of the second layer, and wherein the computer-

5 readable program code devices configured to cause a computer to define as a tile an  
6 area of overlap comprises:

7 computer-readable program code devices configured to cause a com-  
8 puter to subdivide the second layer along a line corresponding  
9 to an extension of the at least one edge of the first layer that lies  
10 within the bounds of the second layer.

1 42. (Original) The computer program product of claim 29, wherein:

2 the computer-readable program code devices configured to cause a  
3 computer to select one of the layers comprise computer-readable  
4 program code devices configured to cause a computer to select  
5 one of the layers in the set of at least two layers, the selected  
6 layer having a layer pixel corresponding to the image pixel, the  
7 layer pixel having a color value and an alpha value; and  
8 the computer-readable program code devices configured to cause a  
9 computer to composite the color value of the layer pixel with the  
10 accumulator color value are configured to cause a computer to  
11 use the alpha value to composite the color value.

1 43. (Currently Amended) A system for combining at least two overlapping  
2 layers to render an image, the image containing a plurality of image pixels, each  
3 overlapping layer containing a plurality of layer pixels, each layer pixel correspond-  
4 ing to one of the image pixels, the system comprising:



5 tile subdividing means, for defining a tile, the tile comprising a subset  
6 of the image pixels delimited according to an area of overlap  
7 among a set of at least two layers, so that a first portion of the  
8 image lies within the tile and a second portion of the image lies  
9 outside the tile;  
10 accumulating means for initializing an accumulator color value for at  
11 least one image pixel in the defined tile;  
12 layer selecting means, for successively selecting each of at least a subset  
13 of the layers in the set of at least two layers, each selected layer  
14 having a layer pixel corresponding to the image pixel, the layer  
15 pixel having a color value;  
16 compositing means, coupled to the layer selecting means and to the ac-  
17 cumulating means, for, for each successively selected layer,  
18 compositing the color value of the layer pixel with the ac-  
19 cumulator color value and storing the result in the accumulating  
20 means; and  
21 output means, coupled to the accumulating means, for outputting the  
22 accumulator color value;  
23 wherein in combining the overlapping layers, the accumulating means,  
24 the layer selecting means, and the compositing means process  
25 the first portion of the image distinctly from the second portion  
26 of the image;

27           wherein, for each defined tile, the set of layers that overlap within the  
28           tile is homogenous throughout the entirety of the tile.

1           44. (Original) The system of claim 43, wherein each layer pixel has an opacity  
2 value, and wherein:

3           the accumulating means further initializes an accumulator opacity  
4           value;

5           the compositing means further composites the opacity value of the  
6           layer pixel with the accumulator opacity value and stores the re-  
7           sult in the accumulating means; and

8           the subset of overlapping layers selected by the layer selecting means is  
9           determined responsive to a comparison of the accumulator opac-  
10          ity value with a full opacity value.

1           45. (Original) The system of claim 43, wherein the layer selecting means suc-  
2 cessively selects layers by selecting a topmost remaining layer in the set of at least  
3 two layers.

1           46. (Original) The system of claim 43, wherein the output means outputs the  
2 accumulator value to a frame buffer.

1           47. (Original) The system of claim 43, further comprising display means, cou-  
2 pled to the output means, for displaying the image.

1           48. (Original) The system of claim 43, wherein each of the layer selecting  
2 means, compositing means, accumulating means, and output means operates on  
3 each image pixel in the defined tile.

1           49. (Original) The system of claim 43, wherein each of the layer selecting  
2 means, compositing means, accumulating means, and output means operates on at  
3 least two image pixels concurrently.

1           50. (Original) The system of claim 43, further comprising a second accumul-  
2 ing means, coupled to the compositing means, for initializing a second accumulator  
3 color value for a second image pixel in the defined tile, and wherein:

4           the layer selecting means, concurrently with successively selecting each  
5           of at least a subset of the layers in the set of at least two layers  
6           having a layer pixel corresponding to the first image pixel, se-  
7           lects one of the layers in the set of at least two layers having a  
8           second layer pixel corresponding to the second image pixel, the  
9           second layer pixel having a color value;

10          the compositing means, concurrently with compositing the first color  
11          value of the layer pixel with the accumulator color value, com-  
12          posites the color value of the second layer pixel with the second  
13          accumulator color value and stores the result in the second ac-  
14          cumulating means; and

15          the output means outputs the second accumulator color value.

1           51. (Original) The system of claim 43, wherein at least one of the layers in the  
2 set of at least two layers is non-rectangular.

1           52. (Original) The system of claim 43, wherein at least one pixel of at least one  
2 of the layers in the set of at least two layers is transparent, and wherein the composi-  
3 ting means:

4                 responsive to the layer pixel being transparent, retains the accumulator  
5                         color value; and

6                 responsive to the layer pixel not being transparent, composites the color  
7                         value of the layer pixel with the accumulator color value.

1           53. (Original) The system of claim 43, wherein:

2                 the tile subdividing means defines as a second tile a second area of  
3                         overlap between a second set of at least two layers, the tile com-  
4                         prising a second subset of the image pixels;

5                 the accumulating means initializes a second accumulator color value  
6                         for at least one image pixel in the second defined tile;

7                 the layer selecting means successively selects each of at least a subset of  
8                         the layers in the second set of at least two layers, each selected  
9                         layer having a layer pixel corresponding to the image pixel, the  
10                         layer pixel having a color value;

11           the compositing means, for each successively selected layer, composites  
12           the color value of the layer pixel with the second accumulator  
13           color value and stores the result in the accumulator; and  
14           the output means outputs the second accumulator color value.

1           54. (Original) The system of claim 43, wherein each layer comprises a win-  
2           dow, and wherein the image comprises a display for a windowing system.

1           55. (Original) The system of claim 43, wherein a first one of the layers in the  
2           set overlaps a second one of the layers in the set, and wherein each layer comprises  
3           bounds defined by edges, and wherein at least one edge of the first layer lies within  
4           the bounds of the second layer, and wherein the tile subdividing means comprises:  
5           means for subdividing the second layer along a line corresponding to  
6           an extension of the at least one edge of the first layer that lies  
7           within the bounds of the second layer.

1           56. (Original) The system of claim 43, wherein:  
2           the layer selecting means successively selects each of at least a subset of  
3           the layers in the set of at least two layers, each selected layer  
4           having a layer pixel corresponding to the image pixel, the layer  
5           pixel having a color value and an alpha value; and  
6           the compositing means composites the color value of the layer pixel  
7           with the accumulator color value, using the alpha value.

1           57. (Currently Amended) In an image containing a plurality of layers,  
2   wherein a first one of the layers overlaps a second one of the layers, and wherein  
3   each layer comprises bounds defined by edges, and wherein at least one edge of the  
4   first layer lies within the bounds of the second layer, a method of subdividing tiles,  
5   comprising:

6           subdividing the second layer along a straight line corresponding to an  
7           extension of the at least one edge of the first layer that lies within  
8           the bounds of the second layer, to obtain two tile subdivisions;  
9           and

10          storing, in a tile list, a representation of at least a subset of the obtained  
11          tile subdivisions;

12          wherein, for each tile, the set of layers that overlap within the tile is  
13          homogenous throughout the entirety of the tile.

1           58. (Original) The method of claim 57, further comprising:

2           repeating the subdividing step using at least one of the obtained tile  
3           subdivisions.

1           59. (Original) The method of claim 57, further comprising:

2           joining at least two adjacent tile subdivisions in the tile list.

1           60. (Original) The method of claim 57, further comprising:

responsive to at least two adjacent tile subdivisions including portions  
of the same set of identical layers as one another, joining the at  
least two adjacent tile subdivisions in the tile list.

61. (Currently Amended) In a device containing an image having a plurality  
of layers, wherein a first one of the layers overlaps a second one of the layers, and  
wherein each layer comprises bounds defined by edges, and wherein at least one  
edge of the first layer lies within the bounds of the second layer, a system for subdividing tiles, comprising:

a tile subdivider, for subdividing the second layer along a straight line  
corresponding to an extension of the at least one edge of the first  
layer that lies within the bounds of the second layer, to obtain  
two tile subdivisions; and

a tile list, coupled to the tile subdivider, for storing a representation of  
at least a subset of the obtained tile subdivisions;

wherein, for each tile, the set of layers that overlap within the tile is  
homogenous throughout the entirety of the tile.

62. (Original) The system of claim 61, wherein:

the tile subdivider repeats the subdividing using at least one of the obtained tile subdivisions.

63. (Original) The system of claim 61, further comprising:

2 a tile joiner, coupled to the tile list, for joining at least two adjacent tile  
3 subdivisions in the tile list.

1 64. (Original) The system of claim 61, further comprising:

2 a tile joiner, coupled to the tile list, for, responsive to at least two adja-  
3 cent tile subdivisions including portions of the same set of iden-  
4 tical layers as one another, joining the at least two adjacent tile  
5 subdivisions in the tile list.

1 65. (Currently Amended) A computer program product comprising a com-  
2 puter-usable medium having computer-readable code embodied therein for subdi-  
3 viding tiles in an image containing a plurality of layers, wherein a first one of the  
4 layers overlaps a second one of the layers, and wherein each layer comprises bounds  
5 defined by edges, and wherein at least one edge of the first layer lies within the  
6 bounds of the second layer, comprising:

7 computer-readable program code devices configured to cause a com-  
8 puter to subdivide the second layer along a straight line corre-  
9 sponding to an extension of the at least one edge of the first layer  
10 that lies within the bounds of the second layer, to obtain two tile  
11 subdivisions; and

12 computer-readable program code devices configured to cause a com-  
13 puter to store, in a tile list, a representation of at least a subset of  
14 the obtained tile subdivisions;



15                   wherein, for each tile, the set of layers that overlap within the tile is  
16                   homogenous throughout the entirety of the tile.

1           66. (Original) The computer program product of claim 65, further compris-  
2 ing:

3                   computer-readable program code devices configured to cause a com-  
4                   puter to repeat the subdividing using at least one of the obtained  
5                   tile subdivisions.

1           67. (Original) The computer program product of claim 65, further compris-  
2 ing:

3                   computer-readable program code devices configured to cause a com-  
4                   puter to join at least two adjacent tile subdivisions in the tile list.

1           68. (Original) The computer program product of claim 65, further compris-  
2 ing:

3                   computer-readable program code devices configured to cause a com-  
4                   puter to, responsive to at least two adjacent tile subdivisions in-  
5                   cluding portions of the same set of identical layers as one an-  
6                   other, join the at least two adjacent tile subdivisions in the tile  
7                   list.

1           69. (Currently Amended) In a device containing an image having a plurality  
2 of layers, wherein a first one of the layers overlaps a second one of the layers, and

3 wherein each layer comprises bounds defined by edges, and wherein at least one  
4 edge of the first layer lies within the bounds of the second layer, a system for subdividing tiles, comprising:

6 tile subdividing means, for subdividing the second layer along a  
7 straight line corresponding to an extension of the at least one  
8 edge of the first layer that lies within the bounds of the second  
9 layer, to obtain two tile subdivisions; and

10 tile list storage means, coupled to the tile subdividing means, for storing a representation of at least a subset of the obtained tile subdivisions;

13 wherein, for each tile, the set of layers that overlap within the tile is  
14 homogenous throughout the entirety of the tile.

1 70. (Original) The system of claim 69, wherein:

2 the tile subdividing means repeats the subdividing using at least one of  
3 the obtained tile subdivisions.

1 71. (Original) The system of claim 69, further comprising:

2 tile joining means, coupled to the tile list storage means, for joining at  
3 least two adjacent tile subdivisions in the tile list.

1 72. (Original) The system of claim 69, further comprising:

2 tile joining means, coupled to the tile list storage means, for, responsive  
3 to at least two adjacent tile subdivisions including portions of

4 the same set of identical layers as one another, joining the at least  
5 two adjacent tile subdivisions in the tile list.